

REMARKS

I. Introduction

In response to the Office Action dated October 29, 2002, claims 1, 7, and 13 have been amended. Claims 1-18 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Prior Art Rejections

In paragraphs (2)-(3) of the Office Action, claims 1-18 were rejected under 35 U.S.C. §102(e) as being anticipated by Edwards et al., U.S. Patent No. 6,459,442 B1 (Edwards). Specifically, claim 1 was rejected as follows:

As per claim 1, Edwards teaches a computer-implemented method for selecting objects comprising:
displaying a two-dimensional viewport of one or more existing objects maintained within a three-dimensional space represented in a computer-implemented graphics system (fig. 29; col. 12, lines 42-44);
obtaining a selection request from a user using a cursor selection device while locating the cursor in the two-dimensional viewport (col. 12; lines 44-46; *the graphics system keeps track of where the cursor is so that users may manipulate objects*);
examining the existing objects to obtain one or more relationships between the existing objects (col. 12, lines 37-40);
creating one or more virtual objects based on the relationships (col. 14, lines 40-43);
creating a selection set comprised of at least one of the existing objects and at least one of the virtual objects based on the relationships (fig. 17; *selection set comprising of existing object 426d, existing object 426e and virtual object 1702*);
determining if the selection request is for an object in the selection set, and if the selection request is for an object in the selection set, selecting all of the objects in the selection set (fig. 17; *'ab' is grouped to become one entity - user clicks on 'a' and 'ab' is selected, user clicks on 'b' and 'ab' is selected*).

Applicants respectfully traverse the above rejections for on or more of the following reasons:

- (1) Edwards fails to teach, disclose, or suggest a virtual object;
- (2) Edwards fails to teach, disclose, or suggest a virtual object that is not specifically stroked; and
- (3) Edwards fails to teach, disclose, or suggest creating a virtual object based on a relationship between two existing objects.

Independent claims 1, 7, and 13 are generally directed to selecting objects. Specifically, existing objects (that are displayed in a viewport) are examined to determine and obtain a relationship between them. Based on the relationship, a virtual object (that is not specifically

stroked) is created. In other words, a virtual object is created that is not displayed. A selection set is then created that contains the virtual object and one or more of the existing objects. A selection request from a user is examined to determine if an object in the selection set is being selected. If an object in the set has been selected, all of the objects in the set are also selected.

The cited references do not teach nor suggest these various elements of Applicants' independent claims.

Edwards merely describes freeform display editing system groups freeform strokes into one or more segments on a display. Each segment in the system defines a region of the display that includes a collection of strokes. Multiple behaviors can be dynamically attached or removed from any given segment, even after a segment has been created and filled with strokes. Each behavior provides a task-specific application to the segment to which it is attached. Segments de-couple interpretations of input data from behaviors to provide temporal multiplexing of task-specific applications. Advantageously, data associated with a segment can be composed at the same time by different behaviors.

The Office Action relies on col. 14, lines 40-43 to teach creating one or more virtual objects based on relationships between existing objects. Col. 14, lines 40-43 provide:

It will be appreciated by those skilled in the art that the shape defining the bounded region of a segment need not be rectangular as illustrated in the Figures. Instead, the bounded region of a segment may for example have an oval or circular shape.

However, such language does not describe the creation of a virtual object whatsoever. As amended, a virtual object is an object that is not specifically stroked. In other words, it is an area that is not displayed on the screen. For example, a virtual object may comprise the empty space between strokes in a dashed line. Stating that a bounded region can be a variety of shapes has no impact whatsoever and does not even remotely allude to such a virtual object.

The Office Action continues and provides that item 1702 of fig. 17 is a virtual object. Fig. 17 follows:

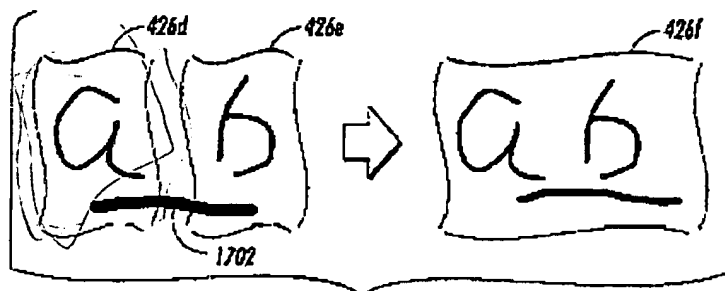


FIG. 17

As illustrated in Fig. 17, item 1702 is displayed and is a stroke. Accordingly, contrary to the present claims, item 1702 is specifically stroked. Further, col. 10, lines 36-53 describe Fig. 17 and 18. Based on the description, item 1702 is a joining stroke specifically drawn by the user that comprises a horizontal line that extends from one segment to the other. Thus, item 1702 is clearly not a virtual object as claimed. Instead, item 1702 is a stroke that is drawn by a user and displayed on a screen.

Additionally, stroke 1702 is not created based on the relationship between objects 426d and 426e. Instead, stroke 1702 is created based on the stroke of a user. Accordingly, the creation of stroke 1702 is not the creation of a virtual object based on a relationship between two existing objects.

Further, since stroke 1702 is not a virtual object, item 426f cannot be a set comprised of an existing object and a virtual object. As displayed item 426f includes stroke 1702 which is not a virtual object. Further, Edwards teaches away from adding a virtual object to the set. For example, referring to input strokes (strokes from a user) and associating the input stroke with segments at col. 6, lines 65-68, Edwards provides: "In either case, the input stroke is not added to the selected segment's associated set of painted strokes 420 (i.e., output strokes)." Accordingly, Edwards specifically provides that the stroke is not added to the set of existing objects. Thus, even if Edward's input stroke is considered a "virtual object" as claimed, it is not added to the set.

The Office Action continues and states that in fig. 17, if the user clicks on 'a', 'ab' is selected and if the user clicks on 'b', 'ab' is selected. Fig. 17 merely shows two text objects 426d and 426e being joined using a join stroke 1702. There is no indication, explicit or implicit that indicates that if the user clicks on either 'a' or 'b' that the entire segment will be selected. Further, the claims provide

for the selection of any object in the set resulting in the selection of all of the objects. In other words, if the letter 426d, letter 426c, and stroke 1702 were all part of the set, the claims provide that if line 1702 is selected, object 426a and 426e would also be selected.

In addition to selecting 'ab' if 'a' or 'b' is selected, the claims specifically provide for the selection of the virtual object as well (such a selection is provided in the claims by the selection of all of the objects in the selection set wherein the selection set specifically comprises an existing object AND a virtual object). Thus, if Edwards met the claim limitations, the selection of 'a' or 'b' would result in the selection of 'ab' AND line 1702 (and not just the selection of 'ab'). Edwards and the Office Action fail to describe such a selection whatsoever. Further, as described above, the input stroke (i.e., line 1702) is clearly excluded from the selected set (see col. 6, lines 65-68).

In addition to the above, it is clear that Edwards merely relates to the use of strokes by a user and the recognition and association of such strokes with a segment. Edwards does not address selecting objects using virtual objects created by a system for areas that are not specifically stroked. Accordingly, Edwards relates to and addresses a completely different problem and solution from that of the present invention. In this regard, Applicants' invention solves problems not recognized by Edwards. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Edwards.

Thus, Applicants submit that independent claims 1, 7, and 13 are allowable over Edwards. Further, dependent claims 2-6, 8-12, and 14-18 are submitted to be allowable over Edwards in the same manner, because they are dependent on independent claims 1, 7, and 13, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-6, 8-12, and 14-18 recite additional novel elements not shown by Edwards.

III. Conclusion

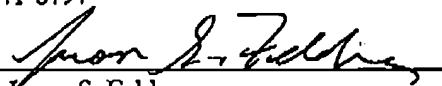
In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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APPENDIX: CLAIMS IN MARKED-UP FORM

1. (AMENDED) A computer-implemented method for selecting objects comprising:

- displaying a two-dimensional viewport of one or more existing objects maintained within a three-dimensional space represented in a computer-implemented graphics system;
- obtaining a selection request from a user using a cursor selection device while locating the cursor in the two-dimensional viewport;
- examining the existing objects to obtain one or more relationships between the existing objects;
- creating one or more virtual objects that are not specifically stroked based on the relationships;
- creating a selection set comprised of at least one of the existing objects and at least one of the virtual objects based on the relationships;
- determining if the selection request is for an object in the selection set; and
- if the selection request is for an object in the selection set, selecting all of the objects in the selection set.

7. (AMENDED) A computer-implemented graphics system for selecting objects comprising:

- a computer having a monitor attached thereto;
- a graphics program executing on said computer;
- means, performed by the graphics program, for displaying a two-dimensional viewport of three-dimensional space displayed by the graphics program;

means, performed by the graphics program, for obtaining a selection request from a user using a cursor selection device while locating the cursor in the two-dimensional viewport;

means, performed by the graphics program, for examining the existing objects to obtain one or more relationships between the existing objects;

means, performed by the graphics program, for creating one or more virtual objects that are not specifically stroked based on the relationships;

means, performed by the graphics program, for creating a selection set comprised of at least one of the existing objects and at least one of the virtual objects based on the relationships;

means, performed by the graphics program, for determining if the selection request is for an object in the selection set; and

means, performed by the graphics program, for selecting all of the objects in the selection set if the selection request is for an object in the selection set.

13. (AMENDED) An article of manufacture embodying logic for selecting objects in a computer-implemented graphics system, the logic comprising:

displaying a two-dimensional viewport of one or more existing objects maintained within a three-dimensional space represented in a computer-implemented graphics system;

obtaining a selection request from a user using a cursor selection device while locating the cursor in the two-dimensional viewport;

examining the one or more existing objects to obtain one or more relationships between the existing objects;

creating one or more virtual objects that are not specifically stroked based on the relationships;

creating a selection set comprised of at least one of the existing objects and at least one of the virtual objects based on the relationships;

determining if the selection request is for an object in the selection set; and

if the selection request is for an object in the selection set, selecting all of the objects in the selection set.